converting the sequence of symbols into a non-repeat [plaintext] sequence of symbols;

[outputting a raw cipher from the non-repeat plaintext wherein the raw cipher includes at least one message by applying a reduced key to the raw cipher text]

creating a ciphertext from the non-repeat sequence of symbols by applying a reduced key to the sequence of symbols, wherein the ciphertext includes at least one message; and

reproduc[e]ing a first message by applying a first key to the [raw] ciphertext.

In claim 7, line 1, change "1" to - -2- -.

In claim 7, line 3, change "plaintext" to - - sequence of symbols- -.

In claim 8, line 1, change "1" to - -2- -.

In claim 9, line 1, delete "raw".

In claim 10, line 1, delete "raw".

In claim 16, change "a large number of" to - -different- -.

Please add the following new claims 17-23:

-- 17. (New) A method for encryption comprising:

rewriting a first plaintext message as a first sequence of symbols from a first set of symbols comprised of Si symbols;

creating a first encryption key by

creating a set of vertices, each vertex in the set of vertices being associated with a symbol from said first set of symbols; and

defining a relationship for pairs of vertices in the set of vertices, wherein for each pair the relationship is expressed by a vector originating in one vertex and terminating in another vertex,

the vector being associated with a symbol from a second set of symbols comprised of So symbols;

and

creating a sequence of symbols from the second set of symbols by

selecting a first vertex from the set of vertices, which corresponds to a first symbol in the first sequence of symbols from the first set of symbols,

identifying a second vertex from the set of vertices, which corresponds to a second symbol in the first sequence of symbols from the first set of symbols,

identifying a path, comprised of at least one vector, that originates in the first identified vertex and terminates in the second identified vertex; and

identifying at least one symbol from the second set of symbols corresponding to the at least one vector comprising the identified path.

18. The method of claim 17, wherein no two consecutive symbols in the first sequence of symbols are the same.

19. The method of claim 17, wherein the set of vertices comprises at least as many vertices as there are symbols in the first set of symbols, and each vertex in the set of vertices is associated with at least one terminating and at least one originating vector.

20. The method of claim 17, wherein the step of creating a key comprises:

defining the relationship for pairs of vertices such that no two vectors originating in a same vertex are being associated with the same symbol from the second set of symbols.

21. The method of claim 17, wherein creating a key comprises:

creating the set of vertices such that a subset of contiguous vertices being associated with

a same symbol from the first set of symbols relates to vertices corresponding to any other symbol from the first set of symbols by vectors originating from vertices in the subset and terminating in at least one vertex associated with each of the any other symbols from the first set of symbols.

22. The method of claim 17, further comprising:

informing a recipient of the sequence of symbols from the second set about a location of the first vertex in the set of vertices, the first vertex being used as a starting point for creating the sequence from the second set of symbols.

23. The method of claim 17, further comprising:

rewriting a second plaintext message differing from the first plaintext message as a second sequence of symbols from the first set of symbols; and

creating a second encryption key such that applying the second encryption key to the second sequence of symbols from the first set results in a second sequence from the second set of symbols which is the same as the first sequence from the second set of symbols.

24. A cryptographic method comprising:

creating cryptanalytic obstacles by creating a cryptographic key;

expressing a plaintext as a series of vertices; and

expressing the series of vertices by a sequence of vectors which mark the sequence of vertices.

25. The method of claim 24, wherein the cryptographic key is constructed as a graph including vertices that are linked through vectors.

26. The method of claim 24, wherein the vertices are each marked by a symbol that belongs to an alphabet in which the plaintext is expressed, and the vectors are each

marked by a symbol of the alphabet in which a ciphertext is expressed.

27. The method of claim 24, wherein the key is expressed as a matrix, the elements of which represent the vertices, and vectors for each vertex are directed as up, down, right, or left to no more than four neighboring vertices.

28. A cryptographic method in which cryptanalytic obstacles are built through expansion of plaintext into a larger ciphertext, the expansion comprising:

expressing the plaintext as a sequence of symbols without repetition, so that there is no occasion where a symbol will appear twice one after the other; and

expanding the sequence of symbols by replacing any symbol with an arbitrary number of consecutive appearances of the same symbol.

29. The method of claim 28, wherein the expansion is reversed by replacing all consecutive symbols with a same single symbol.

30. The method of claim 28, wherein the non-repetition sequence is achieved by first expressing the plaintext as a sequence of symbols from a set of (s-1) symbols from an alphabet comprised of s symbols and separating any two consecutive elements of that plaintext sequence which are marked by the same symbol by placing in between them an additional element marked by a previously unused s-th symbol.

31. The method of claim 30, wherein the non-repetition sequence is reversed by removing the s-th symbol wherever it appears in the non-repeat sequence.

32. The method of claim 27, wherein each vertex is associated with one of four symbols expressed as two binary digits: 00, 01, 10, 11; and the matrix is expressed as a binary